

## **Axial Skeleton**

- skull
- hyoid bone
- vertebrae
- thoracic cage

### **Functions:**

- upright axis of the body
- protects the brain, spinal cord & vital organs within the thorax

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## **Skull**

28 separate bones.

### **Groups:**

- Auditory ossicles (6)
- Cranium--

Cranial vault (8)

Facial bones (14)

### **Sutures (4):**

- sagittal
- coronal
- lambdoidal
- squamous

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## **Hyoid Bone**

- “floats” in the superior aspect of the neck, just below the mandible.
  
- provides attachments for the tongue muscles and the muscles which elevate the larynx during speech or swallowing.

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**Vertebral Column-- 26 bones**

**5 Regions:**

- *cervical* (7)
- *thoracic* (12)
- *lumbar* (5)
- *sacral* (1....5 fused)
- *coccygeal* (1....4-5 fused)

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**5 Major Functions of the Vertebral Column:**

- 1) supports weight of head & neck
- 2) protects spinal cord
- 3) allows spinal nerves to exit the spinal cord
- 4) provides site for muscle attachment
- 5) permits movement of the head & trunk

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**Distinguishing Features**

	Cervical	Thoracic	Lumbar
Size			
Foramina			
Spinous Processes			
Transverse Processes			
Articular Facets for Ribs			

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### Thoracic Cage

- protects organs within the thorax & prevents the collapse of the lungs during respiration.
- also, provide muscular attachments.

Consists of:

- thoracic vertebrae
- rib and costal cartilage (12)
- sternum

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### Landmarks on the ribs:

- head-- *vertebral articulation*
- neck-- *between the head and the tubercle*
- tubercle-- *articular facet for transverse process of vertebra*
- body (shaft)
- angle-- *point of greatest curvature*

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### Sternum

3 Parts:

- 1) Manubrium
- 2) Body
- 3) Xiphoid Process

*Sternal angle--* point where the manubrium joins the body ; 2nd rib attaches

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## Appendicular Skeleton

### Upper Limb:

- Pectoral girdle-- scapula & clavicle
- Arm-- humerus
- Forearm-- radius & ulna
- Carpal (wrist) bones-- 8 (2 rows):

Proximal	Distal
scaphoid	trapezium
lunate	trapezoid
triquetrum	capitate
pisiform	hamate
- Metacarpals (5)
- Phalanges

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### Lower Limb:

- Pelvic girdle-- coxa (ilium, ischium, pubis)  
sacrum

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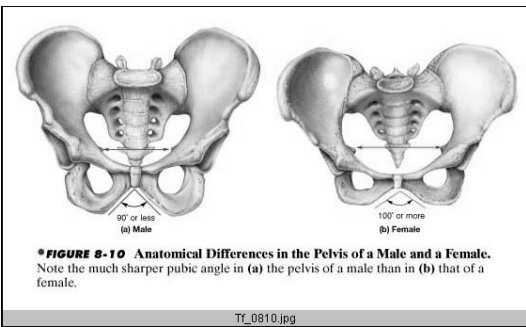
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**Lower Limb:**

- Pelvic girdle-- coxa (ilium, ischium, pubis)  
sacrum
- Thigh-- femur
- Leg-- tibia & fibula
- Patella (*sesamoid bone*)
- Ankle-- tarsal bones (7):  
talus  
calcaneus  
navicular  
cuboid  
cuneiform
  
- Metatarsals (5)
- Phalanges

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